

Abstract of the Disclosure

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10 An improved tube probe for measuring volatile compounds in a liquid or gas
contained in a reactor or in any other environment is disclosed. The probe is
made of a single piece of metal, to one end of which is attached a gas
permeable tubing, threaded on a supporting plate. The plate permits to use of
a variety of tube lengths and diameters while protecting the tube from
mechanical stress due to agitation and aeration. Furthermore, the plate gives
the possibility to have a longer permeable tube than the single loop probe
approach. The probe is designed so that when in use, substantially only the
tube is located inside the reactor. The volatile compounds permeate into the
15 tube into the carrier gas and the carrier gas + volatiles mixture is carried to a
detector through a channel provided in the probe body. The probe is
economical to make and to maintain, while achieving high performance.

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